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Florence Twaddle

(Type or print name of person mailing paper)

(Signature of person mailing paper)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Richard S. Belliveau

Serial No. 10/790,265

Filed: 3/1/2004

Title: CONTENT OPTIMIZING SYSTEM FOR AN IMAGE PROJECTION LIGHTING DEVICE

Group Art Unit: 2851

Examiner: Sever, Andrew T.

BRIEF ON APPEAL (INCLUDES APPENDIX OF CLAIMS)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The following appeal brief is submitted pursuant the appeal, the notice of appeal being filed on October 28, 2005 with this brief, from the final action of the primary examiner dated 11/01/2005 MM0HAMM1 00000001 10790265

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August 26, 2005 and the advisory action of the examiner dated October 17, 2005 in the above identified application. An authorization to charge a credit card for \$500.00 (\$250.00 for a notice of appeal fee, and for \$250.00 for filing this brief in support of the appeal for a small entity) is included with this brief.

I.STATUS OF CLAIMS

Claims 6-9 and 32-36 are pending in the application. The final form of these claims is enclosed as an appendix to this appeal brief.

II. STATEMENT IDENTIFYING "REAL PARTY IN INTEREST"

The real party in interest in this matter is inventor(s) and applicant(s): Richard S. Belliveau, residing at 10643 Floral Park, Austin TX 78759.

III.STATEMENT IDENTIFYING RELATED APPEALS AND INTERFERENCES

There are no other current appeals and there are no current interferences related to this matter.

IV.COPIES OF APPEAL PAPERS

One original and three copies of the appeal brief and appendix of final claims and all accompanying papers are enclosed.

V.APPENDIX OF CLAIMS INVOLVED IN FINAL FORM

An appendix of all the claims pending in the case in their final form is attached to the brief.

(Three copies and one original of the appendix are attached to the corresponding three copies and one original of the brief).

VI. STATUS OF AMENDMENTS

The present application, serial number 10/790,265 was filed on March 1, 2004. The present application as originally filed, included thirty-one claims. A restriction requirement was provided, dated April 4, 2005, which specified six species. The applicant elected species IV and indicated that claims 6-9 were readable on species IV.

In an office action dated June 2, 2005, the examiner rejected (A) claims 6-8 under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. (U.S. Patent No. 5,988,817) in view of Karlock (U.S. Patent No. 6,172,716), and (B) claim 9 under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. in view of Karlock as applied to claims 6-8 and further in view of Easterly et. al. (U.S. Patent No. 4,912,558).

The applicant amended claims 6-8, canceled previously withdrawn claims 1-5 and \$\mu\$-31, and added claims 32-36 in an amendment dated June 23, 2005.

In a final office action, dated August 26, 2005, the examiner rejected (1) claims 6-8 under 35 U.S.C 103(a) as being unpatentable over Mizushima et. al. (U.S. Patent No. 5,988,817) in view of Karlock (U.S. Patent No. 6,172,716), and (2) claims 9, 35, and 36 under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. in view of Karlock as applied to claims 6-8 and further in view of Easterly et. al. (U.S. Patent No. 4,912,558). Claims 32-34 were not clearly rejected, although it appears that the examiner intended to reject claims 32-34 on the same grounds as claims 6-8.

The applicant responded to the final office action on September 27, 2005, with various

arguments but without any amendment. The examiner supplied an advisory action, dated October 17, 2005, which indicated that the request for reconsideration did not place the application in a condition for allowance.

Claims 6-9 and 32-36 are now pending in the case. The applicant(s) is filing a notice of appeal, with this appeal brief on October 28, 2005, concerning the final office action and the advisory action.

VII. SUMMARY OF INVENTION

Claim 6 of the present application specifies:

- 6. An apparatus comprising
 - an image projection lighting device comprising:
 - a base housing in which is located an electrical component;
 - a yoke;
 - a communications port;
 - a processor;
 - a memory;
 - a lamp housing;

wherein the lamp housing can be remotely positioned in relation to the base;

wherein the following is located within the lamp housing:

a lamp,

and a first light valve;

wherein the communications port receives a black level command specifying an offset;

wherein the processor in response to the black level command retrieves first image data from the memory and applies the offset to the first image data to form second image data;

wherein the first image data specifies a first black level of a first image to be projected by the image projection lighting device;

wherein the second image data specifies a second black level of a second image to be projected by the image projection lighting device;

wherein the first image has a first image coloration and the second image has a second image coloration that is substantially the same as the first image coloration.

In at least one embodiment of the present invention, an apparatus is provided including an image projection lighting device, such as 102. (Present application, Fig. 1, pg. 7, second

paragraph) The image projection lighting device 102 comprises a base housing 210 in which is located an electrical component, such as microprocessor or processor 316. (Id.) The image projection lighting device 102 includes a yoke 220, a communications port 311, a processor 316, a memory 315, and a lamp housing 230. (Present application, Figs. 1 and 2, pg. 7, second paragraph, pg. 10, third paragraph). The lamp housing 230 can be remotely positioned in relation to the base 210. (Present application, pg. 4, third paragraph, pg. 10, second paragraph). A lamp 366 and a first light valve, such as a red light valve 375 are located within the lamp housing 230. (Present application, pg. 8, second paragraph). The communications port 311 receives a black level command specifying an offset and the processor 316 in response to the black level command retrieves first image data from the memory 315 and applies an offset to the first image data to form second image data. (Present application, pg. 21, first paragraph - pg. 22, fourth paragraph, pg. 23, third paragraph). The first image data specifies a first black level of a first image to be projected by the image projection lighting device 102. (Id.) The second image data specifies a second black level of a second image to be projected by the image projection lighting device 102. (Id.) The first image has a first image coloration and the second image has a second image coloration that is substantially the same as the first image coloration. (Present application, pg. 23, second paragraph).

Claim 7 is dependent on claim 6 and further specifies that the apparatus is comprised of an image control and the processor is a component of the image control. Claim 8 is dependent on claim 7 and further specifies that the offset applied to the first image data causes clipping of darker components of the first image. Claim 9 is dependent on claim 8 and further specifies that the clipping is greater than ten percent.

Claim 32 of the present application specifies:

32. An apparatus comprising

an image projection lighting device comprising:

a base housing in which is located an electrical component;

a yoke;

a communications port;

a processor;

an image control;

a memory containing first image data which specifies a first black level and a first image coloration of a first image to be projected by the image projection lighting device;

a lamp housing;

wherein the lamp housing can be remotely positioned in relation to the base;

wherein the following is located within the lamp housing:

a lamp,

and a first light valve;

wherein the communications port receives a black level command;

wherein the black level command causes processing of the first image data to create second image data by applying an offset to the first image data;

wherein the second image data specifies a second black level and a second image coloration of a second image to be projected by the image projection lighting device:

and wherein the second image coloration is substantially the same as the first image coloration.

In at least one embodiment of the present invention, an apparatus is provided including an image projection lighting device, such as 102. (Present application, Fig. 1, pg. 7, second paragraph) The image projection lighting device 102 comprises a base housing 210 in which is located an electrical component, such as microprocessor or processor 316. (Id.) The image projection lighting device 102 includes a yoke 220, a communications port 311, a processor 316, an image control 312, a memory 315, and a lamp housing 230. (Present application, Figs. 1 and 2, pg. 7, second paragraph, pg. 10, third paragraph). The memory 315 contains first image data, which specifies a first black level and a first image coloration of a first image to be projected by the image projection lighting device 102. (Present application, pg. 20, second paragraph - pg. 23, second paragraph).

The lamp housing 230 can be remotely positioned in relation to the base 210. (Present

application, pg. 4, third paragraph, pg. 10, second paragraph). A lamp 366 and a first light valve, such as a red light valve 375 are located within the lamp housing 230. (Present application, pg. 8, second paragraph).

The communications port 311 receives a black level command wherein the black level command causes processing of the first image data to create second image data by applying an offset to the first image data, wherein the second image data specifies a second black level and a second image coloration of a second image to be projected by the image projection lighting device 102 and wherein the second image coloration is substantially the same as the first image coloration. (Present application, pg. 20, second paragraph)

Claim 33 is dependent on claim 32 and further specifies that the offset is applied by the image control. Claim 34 is dependent on claim 32 and further specifies that the offset is applied by the processor 316. Claim 35 is dependent on claim 32 and further specifies that the offset applied to the first image data causes clipping of darker components of the first image. Claim 36 is dependent on claim 35 and further specifies that the clipping is greater than ten percent.

VIII. ISSUES - REJECTIONS BY EXAMINER

The remaining issues in the case are as follows:

- (A) Were claims 6-8 (and apparently claims 32-34) properly rejected under 35 U.S.C 103(a) as being unpatentable over Mizushima et. al. (U.S. Patent No. 5,988,817) in view of Karlock (U.S. Patent No. 6,172,716)?
- (B) Were claims 9, 35, and 36 properly rejected under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. in view of Karlock as applied to claims 6-8 and

32-34 and further in view of Easterly et. al. (U.S. Patent No. 4,912,558)?

Note: Applicant submits that some of the claims may be allowable while others may not be, i.e. all of the claims do not necessarily stand or fall together.

IX. THE REFERENCES

The following references are relied on by the Examiner in the rejection of the office action of August 26, 2005, and advisory action of October 17, 2005, which are currently being appealed:

- 1. Mizushima, U.S. Patent No. 5,988,817;
- 2. Karlock, U.S. Patent No. 6,172,716; and
- 3. Easterly et. al., U.S. Patent No. 4,912,558.

X. BRIEF DESCRIPTION OF THE REFERENCES

1. Mizushima, U.S. Patent No. 5,988,817

Mizushima discloses a personal computer 91 which can be designed to have the function of a lighting operation console 90 and data regarding a screen image including a control system can be outputted to each projector 1 of a plurality of projectors. (Mizushima, Fig. 6, col. 12, lns. 40-43). Mizushima discloses a DMX512 signal (512 channels) coming from the console 90. (Mizushima, Fig. 6, col. 11, lns. 13 – 65). Channels 1 – 100 of the DMX 512 signal are assigned to a screen image. (Id.) Channel 110 is assigned to switching of internally memorized screen data and externally inputted screen image data of images. (Id., at col. 11, lns. 63-65).

2. Karlock, U.S. Patent No. 6,172,716

Karlock teaches an improvement to a video circuit "to provide more economic circuitry

for adjusting the video gain, black level, chroma gain and burst phase of a video signal". (Karlock, col. 1, lines 14-16).

3. Easterly et. al., U.S. Patent No. 4,912,558

Easterly teaches an improvement to a film to video transfer system using an optical sensor (or camera) 28 of figure 1 that can use an analog signal processor 30 to adjust gain and off-set (Easterly, col. 5 lines 12 -19). Easterly teaches "The gain control and the off-set controls may be provided by potentiometers in the amplifier circuits of the signal conditioner". (Easterly, col. 5, lines 17-19).

XI. ARGUMENT

A. Claims 6-8 and 32-34 should not have been rejected under 35 U.S.C 103(a) as being unpatentable over Mizushima et. al. in view of Karlock

The examiner has rejected claims 6-8 and 32-34 under 35 U.S.C. 103(a) based on Mizushima in view of Karlock. The examiner's rejections are submitted to be incorrect. The applicant respectfully submits that the claims rejected under 35 U.S.C. 103(a) do not necessarily stand or fall together.

Claim 6 specifies:

- 6. An apparatus comprising
 - an image projection lighting device comprising:
 - a base housing in which is located an electrical component;
 - a yoke
 - a communications port;
 - a processor;
 - a memory;
 - a lamp housing;
 - wherein the lamp housing can be remotely positioned in relation to the base;

wherein the following is located within the lamp housing:

a lamp.

and a first light valve;

wherein the communications port receives a black level command specifying an offset:

wherein the processor in response to the black level command retrieves first image data from the memory and applies the offset to the first image data to form second image data;

wherein the first image data specifies a first black level of a first image to be projected by the image projection lighting device;

wherein the second image data specifies a second black level of a second image to be projected by the image projection lighting device;

wherein the first image has a first image coloration and the second image has a second image coloration that is substantially the same as the first image coloration.

In at least one embodiment of the present invention, the communications port 311 receives a black level command specifying an offset and the processor 316 in response to the black level command retrieves first image data from the memory 315 and applies the offset to the first image data to form second image data. (Present application, pg. 21, first paragraph – pg. 22, fourth paragraph, pg. 23, third paragraph). The first image data specifies a first black level of a first image to be projected by the image projection lighting device 102. (Id.) The second image data specifies a second black level of a second image to be projected by the image projection lighting device 102. (Id.) The first image has a first image coloration and the second image has a second image coloration that is substantially the same as the first image coloration. (Present application, pg. 23, second paragraph).

Mizushima, does not disclose receiving a black level command specifying an offset.

Mizushima does not disclose retrieving first image data from a memory and applying the offset to the first image data to form second image data.

The examiner concedes that "Mizushima does not specifically teach that the communications port receives a black level command ... or how this command is made and

executed in the image". (Office Action dated August 26, 2005, pg. 3). However the examiner indicates that "black level is adjusted by the projector" in Mizushima. (Office Action dated August 26, 2005, pg. 3, referring to col. 8, ln. 64 of Mizushima). The examiner is referring to a "blackout shutter" which in Mizushima is provided for the purpose of "complete dark" change. (Mizushima, col. 8, ln. 64). Providing a "shutter" for the purpose of "complete dark" change does not in any way suggest providing a black level command specifying an offset and retrieving first image data from a memory and applying the offset to the first image data to form second image data.

The examiner goes on to find obviousness under Mizushima in view of Karlock stating:

"Karlock teaches in figure 1 a video processing circuit which adjust black level for projection purposes see column 1. Mizushima teaches that in an image projection lighting device which has a liquid crystal light valve, by using a black level modifying circuit as Karlock to modify the image data sent to the liquid crystal light valve black level is obtained with the elimination of the need for a blackout shutter (see column 9, lines 1-3). Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a video processing circuitry which among other things adjust black level as is taught by Karlock in the image projection lighting device of Mizushima." (Examiner's Office Action, August 26, 2005, pg. 3).

The examiner is incorrect for at least the following reasons. Firstly, the intent of Mizushima's "shutter" is to provide "complete" dark change. It is not suggested and would appear to be unnecessary to provide a black level command specifying an offset or to retrieve first image data from a memory and apply the offset to the first image data to form second image data, if one is merely trying to provide "complete" dark change.

Secondly, while Karlock broadly mentions "adjusting ... black level ... of a video signal" (Karlock, col. 1, Ins. 4-6), Karlock does not disclose providing a black level command specifying an offset and retrieving first image data from a memory and applying the offset to the first image data to form second image data.

Thus combining Mizushima with Karlock is not suggested and even if one were to combine

Mizushima with Karlock, one would still not meet the limitations of claim 6 of the present invention.

The examiner's incorrect rejection of claim 6 (and of other claims) appeared to be based on a misunderstanding of the law. The examiner intentionally ignored important functional limitations with regards to the "processor" in claim 6 and other claims:

"With regards to the function of the processor adjusting the black level in a specific manner, applicant is directed to MPEP 2114, which states 'Apparatus Claims Must Be Structurally Distinguishable From the Prior Art' and also states 'Manner of Operating The Device Does Not Differentiate Apparatus Claim From the Prior Art.' Accordingly applicant new functional language is irrelevant, Mizushima teaches all the claimed structure while Karlock provides teaching of a method that Mizushima could perform for adjusting black level in an image data signal." (Examiner's Office Action, August 26, 2005, emphasis added, pg. 6, first paragraph).

The examiner was wrong for at least the following reasons. For one, Karlock does not teach a processor functioning the way the processor in claim 6 of the present invention functions.

I.e. Karlock does not disclose providing a black level command specifying an offset and retrieving first image data from a memory and applying the offset to the first image data to form second image data. Secondly, the "functional" language, with regards to a processor is relevant as stated by the Federal Circuit:

"A general purpose computer, or microprocessor, programmed to carry out an algorithm creates a 'new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software'." WMS Gaming, Inc. v. International Game Technology, 184 F.3d 1339 at 1348 (Fed. Cir. 1999) citing In Re Alappat, 33 F.3d 1526, at 1545 (Fed. Cir. 1994) (en banc).

The applicant pointed this clear error of law out to the examiner, in response to the final office action of August 26, 2005. The examiner conceded in an advisory action, that the "function" of the processor was "relevant", but erroneously concluded that Karlock provided the function as claimed. (Advisory Action, Continuation of 11)

The examiner's rejection of claim 6 is incorrect. As previously asserted, combining Mizushima with Karlock is not suggested and even if one were to combine Mizushima with Karlock, one would still not meet the limitations of claim 6 of the present invention.

Claim 6 is submitted to be allowable for at least the foregoing reasons. Claims 7-9 are dependent on claim 6, directly or indirectly, and are submitted to be allowable for at least the same reasons.

Claim 32 specifies:

32. An apparatus comprising

an image projection lighting device comprising:

a base housing in which is located an electrical component;

a yoke;

a communications port;

a processor;

an image control;

a memory containing first image data which specifies a first black level and a first image coloration of a first image to be projected by the image projection lighting device;

a lamp housing;

wherein the lamp housing can be remotely positioned in relation to the base; wherein the following is located within the lamp housing:

a lamp,

and a first light valve;

wherein the communications port receives a black level command;

wherein the black level command causes processing of the first image data to create second image data by applying an offset to the first image data;

wherein the second image data specifies a second black level and a second image coloration of a second image to be projected by the image projection lighting device:

and wherein the second image coloration is substantially the same as the first image coloration.

In at least one embodiment of the present invention, a communications port receives a black level command. (Present application, pg. 21, first paragraph – pg. 22, fourth paragraph, pg. 23, third paragraph). The black level command causes processing of first image data to create second image data by applying an offset to the first image data. (Id.) The first image

data specifies a first black level and a first image coloration of a first image. (Id.) The second image data specifies a second black level and a second image coloration of a second image.

(Id.) The second image coloration is substantially the same as the first image coloration. (Id.)

Mizushima and Karlock do not disclose receiving a black level command, which causes processing of first image data to create second image data by applying an offset to the first image data.

Claim 32 is submitted to be allowable for at least the foregoing reasons. Claims 33-34 are dependent on claim 32 and are submitted to be allowable for at least the same reasons. Claim 33 also specifies that the offset is applied by image control. Claim 34 specifies that the offset is applied by the processor. Neither of these additional limitations is shown by either Mizushima or Karlock. Claims 33 and 34 are submitted to be allowable based on their respective additional limitation as well.

B. Point II - Claims 9, 35, and 36 should not have been rejected under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. in view of Karlock as applied to claims 6-8 and 32-34 and further in view of Easterly et. al.

The examiner has rejected claims 9, 35, and 36 under 35 U.S.C. 103(a) as being unpatentable over Mizushima et. al. in view of Karlock as applied to claims 6-8 and 32-34 and further in view of Easterly et. al. The examiner's rejections under 35 U.S.C. 103 are submitted to be incorrect. The applicant further submits that the rejections under 35 U.S.C. 103 do not necessarily stand or fall together.

Claim 9 is dependent on claim 6. As previously asserted, combining Mizushima with Karlock is not suggested and even if one were to combine Mizushima with Karlock, one would still

not meet the limitations of claim 6 of the present invention.

Furthermore, combining Mizushima, Karlock, and Easterly is not suggested and even if one were to combine Mizushima, Karlock, and Easterly one would still not meet the limitations of claims 6 or 9 of the present invention.

Mizushima, does not disclose receiving a black level command specifying an offset. Mizushima does not disclose retrieving first image data from a memory and applying the offset to the first image data to form second image data. Karlock does not disclose providing a black level command specifying an offset and retrieving first image data from a memory and applying the offset to the first image data to form second image data.

Easterly does not teach an image projection lighting device that can create a second image data from a first image data when a communications port receives a command to modify the first image data and the second image data is created by applying an offset to the first image data. Easterly does not teach that the first image data is stored in a memory and the first image data can be modified into a second image data when the communications port receives a command to modify the first image data and the second image data is created by applying an offset to the first image data.

Claim 9 is submitted to be allowable for at least the foregoing reasons.

Claims 35 and 36 are dependent on claim 32, directly or indirectly. Claim 32 specifies receiving a black level command, which causes processing of first image data to create second image data by applying an offset to the first image data. Mizushima, Karlock, and Easterly do not disclose receiving a black level command, which causes processing of first image data to create second image data by applying an offset to the first image data. Claims 32, 35, and 36 are submitted to be allowable for at least the foregoing reasons.

Claim 35 further specifies that the offset applied to the first image data causes clipping

of darker components of the first image. Mizushima, Karlock, and Easterly do not disclose

applying an offset to a first image data to create second image data to cause clipping of darker

components of the first image. Claim 36 specifies that the clipping is greater than ten percent.

Mizushima, Karlock and Easterly do no disclose applying an offset to a first image data to

create second image data to cause clipping of greater than ten percent of darker components

of the first image. Claims 35 and 36 are submitted to be allowable for at least these reasons as

well.

XII. CONCLUSION

In view of the foregoing, claims 6-9 and 32-36 are respectfully submitted to be in a

condition for allowance. Favorable reconsideration of this application, is respectfully requested.

DATED: 10/28/05

Respectfully submitted

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APPENDIX OF FINAL FORM OF CLAIMS INVOLVED IN APPEAL

6.	An apparatus comprising
	an image projection lighting device comprising:
	a base housing in which is located an electrical component;
	a yoke;
	a communications port;
	a processor;
	a memory;
	a lamp housing;
	wherein the lamp housing can be remotely positioned in relation to the base;
	wherein the following is located within the lamp housing:
	a lamp,
	and a first light valve;
	wherein the communications port receives a black level command specifying an offset;
	wherein the processor in response to the black level command retrieves first image data
	from the memory and applies the offset to the first image data to form second image data;
	wherein the first image data specifies a first black level of a first image to be projected
	by the image projection lighting device;
	wherein the second image data specifies a second black level of a second image to be

wherein the first image has a first image coloration and the second image has a second

projected by the image projection lighting device;

image coloration that is substantially the same as the first image coloration.

7. The apparatus of claim 6

further comprising an image control and the processor is a component of the image control.

8. The apparatus of claim 7 wherein

the offset applied to the first image data causes clipping of darker components of the first image.

9. The apparatus of claim 8 wherein

the clipping is greater than ten percent.

32. An apparatus comprising

an image projection lighting device comprising:

- a base housing in which is located an electrical component;
- a yoke;
- a communications port;
- a processor;
- an image control;
- a memory containing first image data which specifies a first black level and a first image
- coloration of a first image to be projected by the image projection lighting device;
- a lamp housing;

wherein the lamp housing can be remotely positioned in relation to the base; wherein the following is located within the lamp housing:

a lamp,

and a first light valve;

wherein the communications port receives a black level command;

wherein the black level command causes processing of the first image data to create second image data by applying an offset to the first image data;

wherein the second image data specifies a second black level and a second image coloration of a second image to be projected by the image projection lighting device;

and wherein the second image coloration is substantially the same as the first image coloration.

33. The apparatus of claim 32 wherein

the offset is applied by the image control.

- 34. The apparatus of claim 32 wherein the offset is applied by the processor.
- 35. The apparatus of claim 32 wherein

the offset applied to the first image data causes clipping of darker components of the first image.

36. The apparatus of claim 35 wherein

the clipping is greater than ten percent.

DATED: /0/28/0)

Respectfully submitted,

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